REMARKS

This Amendment, submitted in response to the Office Action dated July 20, 2007, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested

Claims 21-46 are all the claims pending in the application. New claims 47-51 were added.

I.   Title

The Examiner has objected to the title as not being descriptive. Applicant has amended the title to "IMAGE PROCESSING APPARATUS FOR SYNTHESIZING IMAGE DATA." Therefore, Applicant requests that the objection to the title be withdrawn.

II.   Claim Objections

The Examiner objected to claims 21, 24, 31 and 42 for containing informalities. Applicant has amended the informalities as indicated above. Therefore, Applicant requests that the objection to the claims be withdrawn.

III.   Claim Rejections under 35 U.S.C. § 102

Claims 21, 22, 24, 25, 27, 28, 30 and 31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Mann (U.S. Patent No. 5,828,793; hereinafter "Mann").

Claim 21

Claim 21 recites:

> "acquiring means for acquiring image data of a plurality of first images to be synthesized that are obtained by taking a single scene under different exposure conditions;
> synthesis means for synthesizing said image data of said plurality of first images obtained by said acquiring means to generate synthesized image data of a composite image; and
> image processing means for <u>subjecting the synthesized image data</u> of said composite image by said synthesis means <u>to dodging processing</u>,
> wherein said synthesis means sets synthesis conditions of image synthesis using said image data of said plurality of first images, and synthesizes said image data of said plurality of first images using said set synthesis conditions."

The Examiner asserts that col. 13, lines 4-8 of Mann, which discloses gamma correction, teaches the claimed dodging processing. However, Applicant submits that it is clear to one of skill in that art that gamma correction of Mann does not teach the claimed dodging processing.

As discussed on col. 10, lines 32-57of Mann,"[a]nother useful filtering operation, well known in the art, is gamma correction, which alters the contrast of the image (effectively altering the slope of the steep region of the characteristic curve). Gamma correction is applied on a pixel-by-pixel basis, either throughout the image or over a selected local area."

On the other hand, as discussed in the Applicant's specification on page 17, para. [80] "dodging processing is mentioned as dynamic range compression processing of the image data where the image to be processed is made unsharp to form an unsharp image data, and then a highlight region and a shadow region of the image are independently compressed while maintaining gradation with an intermediate density region by processing the image data before being made unsharp using the formed unsharp image data."

Therefore, it is clear to one of skill in the art, upon viewing the Mann reference and the

Applicant's disclosure that the gamma correction of Mann does not teach the claimed dodging

processing.

Further, Applicant submits that the gamma correction of Mann corrects so-called gamma

characteristics of an output image and the gamma correction is uniformly performed to the entire

dynamic range of an image. The dodging processing of the present invention, on the other hand,

compressed and enlarges a dynamic range of an image non-linearly. For example, in the

dogging processing of the present invention, the intermediate density region in a dynamic range

of an image where most of the important information of the image is contained is kept

uncompressed or, alternatively, is enlarged, while high-density and low-density regions on both

sides of the intermediate density region are compressed or, alternatively, are not enlarged. One

skilled in the art would understand that the dodging processing of the present invention is

explicitly different from the mere gamma correction disclosed by Mann.

For at least the above reasons, claim 21 and its dependent claims should be deemed

allowable. To the extent claim 28 recites similar subject matter, claim 28 should be deemed

allowable for at least the same reasons.

Claim 27

Claim 27 recites:

"acquiring means for acquiring image data of a plurality of
second images obtained by taking a single scene under different
exposure conditions;
selection means for selecting a plurality of optimal first
images for synthesis among said image data of said plurality of
second images obtained by said acquiring means; and
synthesis means for synthesizing image data of said
plurality of the optimal first images selected by said selection
means to generate synthesized image data of a composite image,

> wherein said synthesis means sets synthesis conditions of
> image synthesis using said image data of said plurality of first
> images, and synthesizes said image data of said plurality of
> first images using said set synthesis conditions."

The Examiner asserts that the sequence of video frames or series of images stored in the

mass storage device 208 teaches the claimed plurality of second images. The Examiner appears

to be referring to reference numeral 212_1, 212_2, and 212_3 which are a series of input image

buffers capable of storing a sequence of video frames. The sequence of images stored in buffers

212_1, 212_2, and 212_3 appear to be images S_1, S_2, and S_3 as illustrated in Fig. 7B.

The Examiner then asserts that the CPU in combination with user interface 250 and

keyboard 230 is then capable of selecting different exposed images in the same scene for

synthesis. However, contrary to the Examiner's assertion, there is no teaching or suggestion that

a selection is made among images S_1, S_2, and S_3. As illustrated in Fig. 7B and its corresponding

description in the specification, a combiner module 246 combines pixels from <u>each of</u> the source

images by weighting correspondingly located pixels in accordance with the certain functions.

See col. 12, lines 44-50. Therefore, contrary to the Examiner's assertions, there is no selection

made among images S_1, S_2, and S_3 (cited by the Examiner for teaching plurality of second

images obtained by taking a single scene under different exposure conditions).

For at least the above reasons, claim 27 and its dependent claims should be deemed

allowable.

Claim 25

Claim 25 recites "wherein said plurality of first images are taken by a digital camera, and

said synthesized image data output from said synthesis means or said image processing means

includes image data for outputting as a photographic print." However, there is no teaching or suggestion in Mann that synthesized image data output from a synthesis means or an image processing means includes image data for outputting as a photographic print. Consequently, claim 25 should be deemed allowable. To the extent claim 31 recites similar subject matter, claim 31 should be deemed allowable for at least the same reasons.

IV.   Claim Rejections under 35 U.S.C. § 103

Claims 32-34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mann in view of Shiraiwa et al. (U.S. Patent No. 6,160,579; hereinafter "Shiraiwa"). Claims 32-34 should be deemed allowable by virtue of their dependency to claim 27 for at least the reasons set forth above. Moreover, Shiraiwa does not cure the deficiencies of Mann.

V.   Allowable Subject Matter

The Examiner has indicated that claims 23, 26 and 29 contain allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. At the present time, Applicant has not rewritten claims 23, 26 and 29 in independent form since Applicant believes they will be deemed allowable, without amendment, by virtue of their dependency to claim 21 and 27 for at least the reasons set forth above.

Claims 35-46 have been allowed.

VI.   New Claims

Applicant has added claims 47-51 to provide a more varied scope of protection. Claim 47 is similar to claim 35, but primarily includes the subject matter which the Examiner indicated resulted in allowance of claim 35. See pages 8-9 of the Office Action. Claims 48-51 should be

deemed allowable by virtue of their dependency to claim 27 for at least the reasons set forth

above.

VII.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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